What is claimed is:

1. An apparatus comprising:

a first phase locked loop to set a frequency of a first output signal of a first voltage controlled oscillator; and

a second phase locked loop to receive the output signal of the first voltage controlled oscillator and to control a second voltage controlled oscillator to provide a second output signal having a frequency derived from the frequency of the first output signal.

2. The apparatus of claim 1, wherein the frequency of the second output signal is a rational fraction of the frequency of the first output signal.

3. The apparatus of claim 1, wherein the frequency of the second output signal is substantially similar to the frequency of the first output signal.

4. The apparatus of claim 2, comprising

a first synthesizer which includes the first phase locked loop and the first voltage controlled oscillator; and

a second synthesizer which includes the second phase locked loop and the second voltage controlled oscillator.

5. The apparatus of claim 4, wherein the first synthesizer comprises a fractional-N synthesizer and the second synthesizer comprises an integer division synthesizer.

6. The apparatus of claim 4, further comprising an oscillator to provide a fundamental frequency to the first synthesizer.

7. The apparatus of claim 6 wherein the oscillator includes a crystal oscillator.

8. A method comprising:

generating by a first synthesizer an output signal having a frequency derived from an input signal having a desired frequency generated by a second synthesizer.

9. The method of claim 8, wherein generating the output signal comprises generating an output signal having a frequency which is a rational fraction of the desired frequency.

10. The method of claim 8 wherein generating comprises:

generating the input signal using a fractional-N synthesizer; and

generating the output signal using an integer division synthesizer.

11. The method of claim 8 comprising:

generating the input signal and the output signal from a signal having a fundamental frequency.

12. An apparatus comprising:

a first phase locked loop to set a frequency of a first output signal of a first voltage controlled oscillator;

a second phase locked loop to receive the output signal of the first voltage controlled oscillator and to control a second voltage controlled oscillator to provide a second output signal having a frequency derived from the frequency the first output signal; and

a transceiver operably coupled to the first and second voltage controlled oscillators and able to transmit and receive signals by at least two dipole antennas.

13. The apparatus of claim 12, wherein the frequency of the second output signal is a rational fraction of the frequency of the first output signal.

14.The apparatus of claim 12, wherein the frequency of the second output signal is substantially similar to the frequency of the first output signal.

15.The apparatus of claim 12, comprising

a first synthesizer which includes the first phase locked loop and the first voltage controlled oscillator; and

a second synthesizer which includes the second phase locked loop and the second voltage controlled oscillator.

16.The apparatus of claim 15, wherein the first synthesizer comprises a fractional-N synthesizer and the second synthesizer comprises an integer division synthesizer.

17.The apparatus of claim 4, further comprising an oscillator to provide a fundamental frequency to the first synthesizer.

18.A wireless communication system comprising:

a mobile station having a dual output synthesizer, which includes:

a first phase locked loop to set a frequency of a first output signal of a first voltage controlled oscillator;

a second phase locked loop to receive the output signal of the first voltage controlled oscillator and to control a second voltage controlled oscillator to provide a second output signal having a frequency derived from the frequency the first output signal; and

a transceiver operably coupled to the first and second voltage controlled oscillators and able to transmit and receive signals by at least two antennas.

19.The wireless communication system of claim 18, wherein the frequency of the second output signal is a rational fraction of the frequency of the first output signal.

20. The wireless communication system of claim 18, wherein the frequency of the second output signal is substantially similar to the frequency of the first output signal.

21. The wireless communication system of claim 18, comprising

a first synthesizer which includes the first phase locked loop and the first voltage controlled oscillator; and

a second synthesizer which includes the second phase locked loop and the second voltage controlled oscillator.

22. The wireless communication system of claim 21, wherein the first synthesizer comprises a fractional-N synthesizer and the second synthesizer comprises an integer division synthesizer.

23. The wireless communication system of claim 18, comprising a base station of a cellular communication system.

24. The wireless communication system of claim 18, wherein at least one antenna of the two or more antennas is an internal antenna.